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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,621	02/15/2001	Diether Rueppel	1998 / F-085	1893
23416	7590	04/20/2004	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899			TRAN, SUSAN T	
			ART UNIT	PAPER NUMBER
			1615	
DATE MAILED: 04/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/744,621	RUEPPEL ET AL.	
	Examiner	Art Unit	
	Susan T. Tran	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-38 is/are pending in the application.
- 4a) Of the above claim(s) 34 and 35 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36 is/are allowed.
- 6) ☒ Claim(s) 15-33, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Receipt is acknowledged of applicant's Amendment filed 01/20/04.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 17, 19-22, 27, 28, 31, 33, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo et al. US 6,358,520, in view of Hasslin US 5,674,514.

Lo teaches pesticides composition comprising microencapsulated pesticides in polymeric shell in the form of a matrix for controlled release (columns 2-5). The polymeric shell containing water soluble polymer, such as polyethylene, polyvinylpyrrolidone, and copolymers (column 3, lines 46-62). The composition further comprises surfactant, and the microparticle having diameter of about 3 μm (ID). Lo does not teach the claimed copolymer, such as cycloolefin.

Hasslin teaches formulation comprising particles containing pesticide mixture, polymer, and copolymer (columns 1-3). The polymer or copolymer can be mixtures of olefin, polyolefin, and cycloolefin, such as, cyclopentene or norbornene (column 3, lines 33-65). The formulation further comprises surfactant, emulsifying agents, or dispersant (columns 6-8). The particles obtained having diameter from 0.5 μm to 12 μm (column 9,

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lines 11-48). Thus, it would have been prima facie obvious for one of ordinary skill in the art to modify Lo's copolymer using the cycloolefin in view of the teaching of Hasslin, because the references teach the advantageous result in the use of pesticides composition in microparticles form. The expected result would be microcapsule in a matrix for controlled release of pesticides.

Claims 16-33, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jankower et al. EP 0 351 943, in view of Epple et al. US 5,376,725.

Jankower teaches process for producing solid polymer microparticles useful as controlled release delivery system for active substances intended for a wide range of uses (see abstract; and columns 3-4). The microparticle/microbeads having size range from 1-200 μm are formed of curable elastomers, including cycloolefins (column 2, lines 15-53). The process is disclosed in columns 5-6, and examples.

Jankower is silent as to the teaching of the specific cycloolefin.

Epple teaches alloys of cycloolefin polymers and polyaryl ether ketones as a matrix material for composite materials or for the production of shape articles (abstract). Epple also teaches that cycloolefin homo-and copolymers are a class of polymer with an outstanding level of properties and processed thermoplastically (column 1, lines 13-55). Cycloolefin having viscosity of greater than 20 cm^3/g and glass transition temperature of between 100° and 200°C is being used (column 4, lines 1-7). Thus, it would have been obvious for one of ordinary skill in the art to modify the controlled-release microparticles of Jankower using the cycloolefin copolymers in view of the

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teachings of Epple, because the references recognize the advantages results in the use of cycloolefin, e.g., durability under pressure and temperature.

Response to Arguments

Applicant's arguments filed 01/20/04 have been fully considered but they are not persuasive.

Claims 34 and 35 were withdrawn from consideration in office action dated 09/05/03.

Applicant argues that Jankower does not disclose nor teach that the microparticle comprises a thermoplastic cycloolefin copolymer as claimed. In response to applicant's argument, although Jankower does not specifically teach that the cycloolefin is thermoplastic, it is the position of the examiner that the cycloolefin taught by Jankower is generic, and it permits the use of thermoplastic cycloolefin. In view of applicant's argument regarding to the inherency, the 102(b) rejection by Jankower has been withdrawn. The burden is shifted to applicant to submit data showing the cycloolefin taught by Jankower is not thermoplastic.

Applicant argues that Lo's active substance is encapsulated in a shell, while the active substance of the claimed invention is not microencapsulated in a shell but is embedded into the polymer matrix (see specification page 2 and claim 18). Contrary to the applicant's argument, it is noted that the feature upon which applicant relies (i.e., embedded into the polymer matrix) is not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are

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not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Hasslin teaches cycloolefin in a laundry list, and it is noted that the list of the specific examples of commercially available polymers does not list cycloolefin. Contrary to the applicant's argument, Hasslin discloses *cycloolefins as his first suitable polymers out of twenty-two polymers* to be used in his invention. With regarding to the list of examples of commercially available polymers, Hasslin's invention cannot be limited to his best mode as described in the examples.

Applicant argues that Hasslin does not give a hint to modify the embodiment of Lo in the sense of the present invention in order to render the advantageous microparticle of the present invention. In response to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Both, Lo et al. and Hasslin recognize the use of polymer to obtain a stable pesticide composition. Lo teaches the use of polymer but is silent as to the specific type of polymer, such as cycloolefin. Hasslin teaches a storage stable pesticidal composition comprising polymer, such as polyolefin.

Applicant argues that there is no hint in Epple to modify the embodiment of Jankower. In response to applicant's argument, the test for obviousness is not whether

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the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Eppe teaches alloys of cycloolefin polymers and polyaryl ether ketones as a matrix material for composite materials or for the production of shape articles (abstract). Eppe also teaches that cycloolefin homo-and copolymers are a class of polymer with an outstanding level of properties and processed thermoplastically (column 1, lines 13-55).

Claims Allowable

Claim 36 is allowed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan T. Tran whose telephone number is (571) 272-0606. The examiner can normally be reached on M-R from 6:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page, can be reached at (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


THURMAN K. PAGE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600